

Amendments to the Claims

1. (Canceled)

2. (Canceled)

3. (Currently Amended) The composition of claim 62 wherein:

the saturated diacid is selected from diacids compatible with fumaric acid and poly(propylene fumarate).

4. (Original) The composition of claim 3 wherein:

the saturated diacid is selected from succinic acid, glutaric acid, adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid and mixtures thereof.

5. (Canceled)

6. (Currently Amended) A composition comprising:

a macromer prepared by reacting an unsaturated diacid having a carbon-carbon double bond and a saturated diacid, wherein the unsaturated diacid having a carbon-carbon double bond is fumaric acid; and

a bioactive ceramic grafted to the macromer, wherein the bioactive ceramic is hydroxyapatite grafted to the macromer by way of silicate groups.

~~The composition of claim 5 wherein:~~

~~the hydroxyapatite is grafted to the macromer by way of silicate groups.~~

7. (Currently Amended) A composition comprising:

a macromer prepared by reacting an unsaturated diacid having a carbon-carbon double bond, a saturated diacid and a silane coupling agent; and
a bioactive ceramic grafted to the macromer.

~~The composition of claim 1 wherein:~~

~~the macromer is prepared by reacting the unsaturated diacid having a carbon-carbon double bond, the saturated diacid, and a silane coupling agent.~~

8. (Original) The composition of claim 7 wherein:

the unsaturated diacid having a carbon-carbon double bond is fumaric acid,
the saturated diacid is selected from diacids compatible with fumaric acid and
poly(propylene fumarate), and

the silane coupling agent is a dihalodialkylsilane.

9. (Original) The composition of claim 8 wherein:

the saturated diacid is selected from succinic acid, glutaric acid, adipic acid, pimelic acid, suberic acid, azelaic acid, sebacic acid and mixtures thereof.

10. (Original) The composition of claim 7 wherein:

the macromer is prepared by reacting the unsaturated diacid having a carbon-carbon double bond, the saturated diacid, the silane coupling agent, and an ester of the saturated diacid.

11. (Original) The composition of claim 10 wherein:

the saturated diacid is adipic acid,
the silane coupling agent is a dichlorodimethylsilane, and
the ester is a monomethyl ester of adipic acid.

12. (Original) The composition of claim 10 wherein:

the bioactive ceramic comprises hydroxyapatite particles having a particle size of less than 10,000 nanometers.

13. (Original) A composition comprising:

a macromer including silane units, units derived from an unsaturated diacid having a carbon-carbon double bond, and units derived from a saturated diacid; and a bioactive ceramic grafted to the macromer.

14. (Original) The composition of claim 13 wherein:

the macromer includes silane units, fumarate units, and units derived from a saturated diacid, and

the bioactive ceramic is hydroxyapatite.

15. (Original) The composition of claim 13 wherein:

the macromer includes silane units, fumarate units, and adipate units, and the bioactive ceramic is hydroxyapatite.

16. (Original) The composition of claim 13 wherein:

the bioactive ceramic is hydroxyapatite.

17. (Original) The composition of claim 16 wherein:

the hydroxyapatite is grafted to the macromer by way of silicate groups.

18. (canceled)

19. (canceled)

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (canceled)

26. (Currently Amended) A biodegradable composite comprising:

(a) a polymeric matrix; and

(b) the composition of claim 64 crosslinked to the matrix.

27. (Original) The composite of claim 26 wherein:

the matrix has a carbon-carbon double bond.

28. (Original) The composite of claim 27 wherein:

the matrix comprises poly(propylene fumarate).

29. (Original) The composite of claim 26 wherein:

the composite is suitable as a scaffold for tissue regeneration.

30. (Original) The composite of claim 29 wherein:

the tissue is bone.

31. (Currently Amended) A crosslinkable, biodegradable material comprising:

a polymer having a carbon-carbon double bond;

the composition of claim 64, and

a crosslinking agent for crosslinking the polymer and the composition.

32. (Original) The material of claim 31 wherein:

the polymer comprises poly(propylene fumarate).

33. (Currently Amended) The material of claim 32 wherein:

the crosslinking agent is a free radical ~~initiator~~initiator.